Amplifier 70FA787/00R/05R

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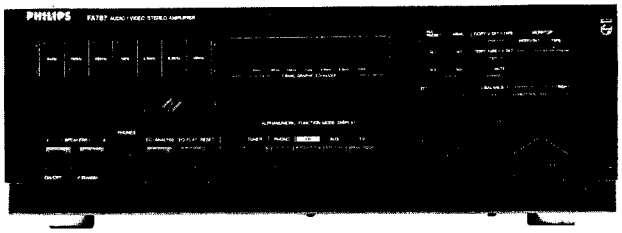

Service Manual

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(GB)
Safety regulations require that the set be restored to its original condition and that parts which are identical with those specified be used.

(NL)
Veiligheidsbepalingen vereisen, dat het apparaat in zijn oorspronkelijke toestand wordt teruggebracht en dat onderdelen, identiek aan de gespecificeerde worden toegepast.

(D)
Bei jeder Reparatur sind die geltenden Sicherheitsvorschriften zu beachten. Der Originalzustand des Geräts darf nicht verändert werden für Reparaturen sind Original-Ersatzteile zu verwenden.

(I)
Le norme di sicurezza esigono che l'apparecchio venga rimesso nelle condizioni originali e che siano utilizzati pezzi di ricambiago identici a quelli specificati.

(F)
Les normes de sécurité exigent que l'appareil soit remis à l'état d'origine et que soient utilisées les pièces de rechange identiques à celles spécifiées.

Documentation Technique Service Dokumentation Documentazione di Servizio Huolte-Ohje Manual de Servicio Manual de Serviçic

"Pour votre sécurité, ces documents doivent être utilisés par des spécialistes agrées, seuls habilités à réparer votre appareil en panne".

Subject to modification
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Printed in The Netherlands
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PHILIPS

Published by Service Consumer Electronics

CS 16 504

SPECIFICATION

General	Nominal value	Typical value
Mains voltage	: 220V ~ (/00R) : 240V ~ (/05R)	: 220V ~ (/00R) : 240V ~ (/05R)
Mains frequency	: 50 – 60 Hz	: 50 – 60 Hz
Power consumption	: 310W	: 380W max
Dimensions (WxHxD)	: 360 x 120 x 300 mm	: 360 x 120/128 x 300 mm
Weight	: 8.3 kg	: 8.3 kg
Amplifier		
Output power	: 75W in 8Ω (IEC)	: 75W in 8Ω (IEC)
Distortion		
T.H.D.	: ⩽0.05% at 1 kHz : ⩽0.1% at 63 Hz–12.5 kHz (IEC)	: ⩽0.015% at 1 kHz : ⩽0.1% at 65 Hz–12.5 kHz (IEC)
Intermodulation	: ⩽0.05% at 60/7000 Hz 4:1	: ⩽0.02% at 60/7000 Hz 4:1
Frequency characteristic		
Phono input, tone control	: from 20 Hz – 20 kHz ±1.5 dB (IEC)	: from 20 Hz – 20 kHz ±0.5 dB (IEC)
Other inputs, neutral	: from 20 Hz – 20 kHz ±2 dB	: from 10 Hz – 30 kHz ±2 dB
Frequency equalizer control	: at 64 Hz +10 dB to –10 dB ±2 dB	: at 64 Hz +10 dB to –10 dB
	: at 150 Hz +10 dB to –10 dB ±2 dB	: at 150 Hz +10 dB to –10 dB
	: at 400 Hz +10 dB to –10 dB ±2 dB	: at 400 Hz +10 dB to –10 dB
	: at 1 kHz +10 dB to –10 dB ±2 dB	: at 1 kHz +10 dB to –10 dB
	: at 2.5 kHz +10 dB to –10 dB ±2 dB	: at 2.5 kHz +10 dB to –10 dB
	: at 6.3 kHz +10 dB to –10 dB ±2 dB	: at 6.3 kHz +10 dB to –10 dB
	: at 15 kHz +10 dB to –10 dB ±2 dB	: at 15 kHz +10 dB to –10 dB
Signal/noise ratio weighted (A-curve)		
Phono input	: for 75W output ⩾ 77 dB (IEC)	: for 75W output ⩾ 77 dB (IEC)
Other inputs	: for 75W output ⩾ 95 dB (IEC)	: for 75W output ⩾ 95 dB (IEC)
Channel separation	: at 1000 Hz ⩾ 55 dB	: at 1000 Hz ⩾ 65 dB
	: at 250 Hz – 10 kHz ⩾ 35 dB	: at 250 Hz – 10 kHz ⩾ 45 dB
Input sensitivity/Input impedance		
Audio		
Phono	: 2.8 mV/ 47 kΩ	: 2.5 mV/ 47 kΩ
Tuner/CD/Aux/Tape	: 150 mV/ 25 kΩ	: 150 mV/25 kΩ
TV/Video	: 150 mV/ 25 kΩ	: 150 mV/25 kΩ
Output level/Output impedance		
Tape (Audio)	: 220 mV/ 3.5 kΩ (Phono 5.0 mV 1 kHz input)	: 220 mV/ 3.5 kΩ (Phono 5.0 mV 1 kHz input)

Phil. 3835

Service Information

	1988-10-13
	70FA787
	A88-250

Product Service Group CE Audio

Previously published A88 – 246

* In this Service Information you will find the, adapted, circuit diagrams for amplifier 70 FA 787.

- INPUT SELECTOR **P404 1/2** – TAPE IN/OUT **PS 74**
- EQUALLIZER AND VOLUME CONTROL **P404**
- PRE AMPLIFIER **P704** – OUTPUT STAGE AND POWER AMPLIFIER **P804**
- CONTROL AND DISPLAY **PR04 1/2** – MICROPROCESSOR **PU04 1/2**
- CONTROL AND DISPLAY (spectrum analyzer) **PR04 2/2** – MICROPROCESSOR **PU04 2/2.**

Service
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3835

CS 18 777

| Q–D | | |

| Q-D-V | | |

| Q-D-V | | |

CE01 D12 CE06 I 9 CE11 D 3 CE16 I 13 CE21 D 7 CE26 I 4 CE31 B13 CE37 D10 CE42 G13 CG05 B16 CG10 M19 CG23 B19 DG03 L20 GE01 J 7 GE02 E 3 GE02 E12 QE02 C 8 QE03 H11 QE04 H 8 QG01 F15 QG03 C20 QG07 F18 RE05 C14 RE10 G13 RG07 I 19 RG14 G16 RG19 B18 RG28 G20 RS62 K 9
CE02 I 12 CE07 D 7 CE12 I 3 CE17 D11 CE22 I 7 CE27 D 2 CE32 G13 CE38 I 10 CG01 A14 CG06 F16 CG15 A15 CG16 F15 CG24 G19 DG04 H20 GE01 J 9 GE02 E 5 GE02 K 2 QE02 C 9 QE03 H13 QE04 H 9 QG01 F17 QG04 G20 RE01 B13 RE06 D14 RE11 C13 RG08 H19 RG15 C16 RG20 G18 RG31 L20
CE03 C10 CE08 I 7 CE13 D 2 CE18 I 11 CE23 D 5 CE28 I 2 CE33 K19 CE39 B13 CG02 F14 CG07 B18 CG08 G18 CG17 A17 DE01 K20 DE02 M20 GE01 J 2 GE01 J10 GE02 E 7 GE02 E 9 QE01 C 2 QE02 A13 QE04 H 2 QE04 F13 QG01 K10 QG05 C19 RE02 F13 RE07 K20 RE12 H13 RG09 B15 RG16 H16 RG25 B19 RG32 J20
CE04 H10 CE09 D 5 CE14 I 2 CE19 D 9 CE24 I 5 CE29 A13 CE34 M19 CE40 F13 CG03 C16 CG08 G18 CG09 K19 CG18 F17 DG02 I 20 GE01 J 3 GE01 J12 GE02 E 9 GE02 E10 QE01 C 4 QE03 C11 QE04 H 4 QG01 A15 QG02 A16 QG06 G19 RE03 A12 RE08 M20 RG03 A15 RG10 G15 RG17 K20 RG26 G19 RG63 I 20
CE05 D 9 CE10 I 5 CE15 D13 CE20 I 9 CE25 D 4 CE30 F13 CE35 J11 CE41 B13 CG04 G16 CG09 K19 CG18 F17 DG02 I 20 GE01 J 5 GE02 E 2 GE02 E10 QE02 C 6 QE03 C13 QE04 H 6 QG01 A17 QG02 F16 QG07 B18 RE04 F12 RE09 B13 RG04 F15 RG13 B16 RG18 M20 RG27 B20 RS61 K 9

EQUALIZER AND VOLUME CONTROL P404 – 2/2

FROM INPUT SELECTOR P404 LEFT

QE02-7A BA3812L BUFFER

GRAPHIC EQUALIZER LEFT

QE01-3A LC7522

15kHz QE02-7C BA3812L CE13 3n9 CE27 270p GE02-7A

6.3kHz QE02-7D BA3812L CE11 6n8 CE25 680p GE02-7B

2.5kHz QE02-7E BA3812L CE09 2n2 CE23 1n5 GE02-7C

1kHz QE02-7F BA3812L CE07 5n6 CE21 3n9 GE02-7D

400Hz QE02-7G BA3812L CE05 150n CE19 10n GE02-7E

150Hz QE03-4A BA3812L CE03 330n CE37 56n CE17 27n GE02-7F

64Hz QE03-4B BA3812L CE01 1µ CE15 68n GE02-7G

RE03 6k8 CE29 47p CE39 4µ7 RE01 6k8 CE31 470p RE09 1M CE41 4µ7 RE11 1M

QE02-7B BA3812L CG01 4µ7 RE05 100k RE06 10k

B MONO SIGNAL FOR SPECTRUM ANALYZER

QG01-5A LC7535 RG03 100k CG15 4µ7 RG09 330k CG05 22p

QG02-2A NJM4558D RG13 4k7 CG03 220p RG15 1k

QG01-5B LC7535 CG17 4µ7 CG07 4µ7 RG19 220k

5dB STEPS

1dB STEPS

BUFFER

QG07-2A NJM4558D CG23 1µ RG25 2k2 RG27 220

20dB MUTE

QG05 2SC2878

QG03 2SC2878 MUTING

WG01-1 TO LEFT J701 PRE-AMPL. P704

WG01-2 TO J701 PRE-AMPL. P704

FROM INPUT SELECTOR P404 RIGHT

QE04-7A BA3812L BUFFER

GRAPHIC EQUALIZER RIGHT

QE01-3B LC7522

15kHz QE04-7C BA3812L CE14 3n9 CE28 270p GE01-7A

6.3kHz QE04-7D BA3812L CE12 6n8 CE26 680p GE01-7B

2.5kHz QE04-7E BA3812L CE10 2n2 CE24 1n5 GE01-7C

1kHz QE04-7F BA3812L CE08 5n6 CE22 3n9 GE01-7D

400Hz QE04-7G BA3812L CE06 150n CE20 10n GE01-7E

150Hz QE03-4C BA3812L CE04 330n CE38 56n CE18 27n GE01-7F

64Hz QE03-4D BA3812L CE02 1µ CE16 68n GE01-7G

RE04 6k8 CE30 47p CE40 4µ7 RE02 6k8 CE32 470p RE10 1M CE42 4µ7 RE12 1M

QE04-7B BA3812L CG02 4µ7

QG01-5C LC7535 RG04 100k CG16 4µ7 RG10 330k CG06 22p

QG02-2B NJM4558D RG14 4k7 CG04 220p RG16 1k

QG01-5D LC7535 CG18 4µ7 CG08 4µ7 RG20 220k

5dB STEPS

1dB STEPS

BUFFER

QG07-2B NJM4558D CG24 1µ RG26 2k2 RG28 220

20dB MUTE

QG06 2SC2878

QG04 2SC2878 MUTING

WG01-3 TO RIGHT J701 PRE-AMPL. P704

FROM JU02-3 MICRO PROC. PU04-1/2 (20dB MUTE)

20dB MUTE RG08 10k DG04 ISS133 RG63 1M WS01-3

TO JU04-4 MICRO PROC. PU04-2/2 (SPECTRUM ANALYZER)

B +V1 WE01-4

FROM JU02-9 MICRO PROC. PU04-1/2 (MUTING)

MUTING RG07 1k DG02 ISS133 RG32 1M WS02-4

FROM J803 POWER SUPPLY P804

+V1 +15V WS03-1

+V2 +13.6V RG17 220 CG09 100µ

+V3 +6.7V RE07 220 CE33 10µ DE01 6.8V

+V4 +4.7V RG31 3k3 DG03 5.1V WS03-2

-V1 -15V WS03-3

-V2 -13.6V RG18 220 CG10 100µ

-V3 -6.7V RE08 220 CE34 10µ DE02 6.8V

FROM JU04 MICRO PROC. PU04-1/2

QE01-3C LC7522 GRAPHIC EQUALIZER

WE01-1 CLOCK 0V CLK

WE01-2 DATA 0.6V DL

S

WE01-3 +5.6V VCC

CONTROL LATCH SHIFT REGISTER RESISTER L NETWORK ANALOG SW RESISTER R NETWORK ANALOG SW

TEST -6.7V VEE -V3 VSS 11,18

RS62 10k RS61 10k

QG01-5E LC7535 VDO S VOLUME CONTROL VCC

DL CLK CE

DATA CONTROL LEVEL SHIFT LEFT RIGHT

VEE -V2 VSS 7,11,16

WS01-5 WS01-4 WS01-2 CE CLOCK DATA

FROM JU02-5 FROM JU02-4 FROM JU02-7 MICRO PROCESSOR PU04-1/2

TO INPUT SELECTOR P404-1/2

CE35 220µ

PRS.05364 T-31 839

Q – D	Q703,Q704 Q705,Q706 Q707 Q708 / Q751÷Q754 D755,756,Q755,Q756 D751÷D754	Q – D
	DN03,DN04 D802÷D809 D801,Q801,D812÷D816,Q802,D810 D817 / QN04,QN03,DN02,DN01 QN02 QN01	
C	701,702 703,704 707,708 705,706 711÷714 715,716 / 751÷754 755÷758	C
	809,810 803 812,813,805,811 804,801,802,814,815,806,808 / N03,N04,N01 N05 N02	
R	701÷704 707,708 709,710,723,724 711÷720 727÷731 / 751÷754 755÷760 763,764 N16,N17 767,768 765,766 771,772	R
	805,801 802 803 / N12÷N15 N10,N11,N01 N05÷N09 N04,N03 N02	
G–L–S–F	GP01,SP01 F001 L001 / LN02,LN01 L751,L752 LN01 LN02	G–L–S–F

PRE–AMPLIFIER P704

OUTPUT STAGE AND POWER SUPPLY P804

FROM WG01 EQUALIZER AND VOLUME CONTROL P404–2/2

HEAD PHONE PW04

SPEAKERS SYSTEM A / SYSTEM B

– POWER SUPPLY –

– PROTECTION CIRCUIT –

AC – OUTLETS

STANDBY RELAY PP54

FROM WP51 POWER SUPPLY P804

FROM JU05 MICROPROCESSOR PU04 1/2

TO WS03 EQUALIZER AND VOLUME CONTROL P404–2/2

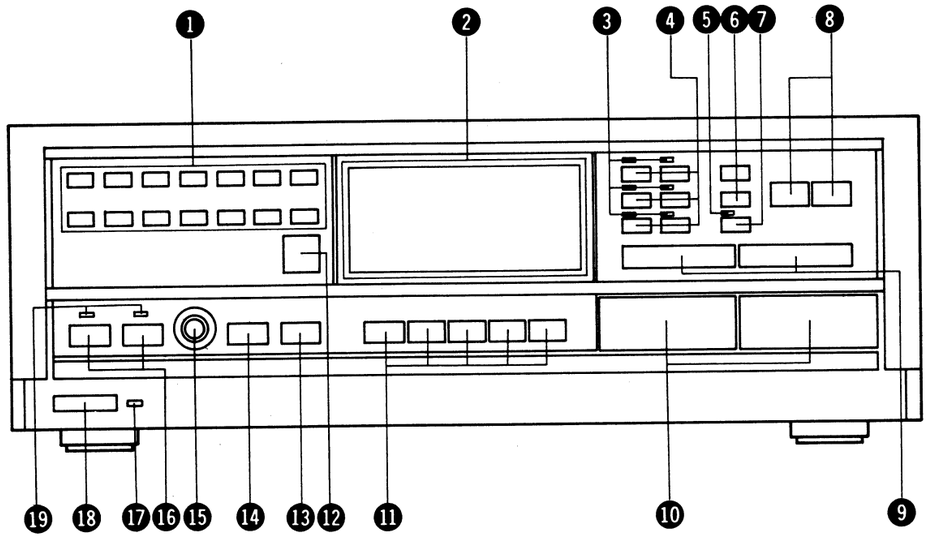
TO JU01 MICRO PROCESSOR PU04–1/2

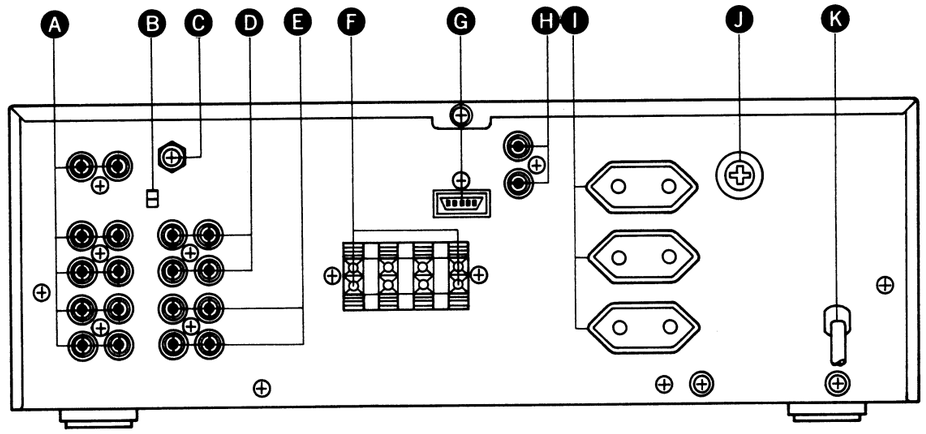
FROM JU01 MICRO–PROCESSOR PU04–1/2

TO JU05 MICRO–PROCESSOR PU04–1/2

POWER ON/OFF

44 311 E11





CONNECTIONS AND CONTROLS

1	Graphic equalizer switch	SR01~SR14
2	Display	VR01
3	Volume preset, memory indicator	DR13, DR15~DR19
4	Volume preset, memory switch	SR19, SR23~SR27
5	Muting indicator	DR14
6	Copy switch	SR37, SR38
7	Muting switch	SR20
8	Video/tape monitor switch	SR21, SR22
9	Balance left/right switch	SR28, SR29
10	Volume up/down switch	SR30, SR31
11	Function switch	SR32~SR36
12	Remote control sensor	QR01
13	EQ flat/reset switch	SR18
14	EQ/analyse switch	SR17
15	Headphone socket	JW01
16	LS A/B switch	SR15, SR16
17	P. standby indicator	DU91
18	Mains switch	SP51
19	LS A/B indicator	DR20, DR21
A	Input	J401, JS01, JS02
B	Mode switch	SS71
C	Ground terminal	J031
D	Video input/output	JS71
E	Tape input/output	JS72
F	LS output A/B	J751
G	Convenient bus	JV02
H	Remote control bus	JV01
I	AC outlet	J021~J023
J	Fuse holder	J001
K	Mains cord	W001

Idling Current

SK... SWITCH	SIGNAL	TO	VOLUME	ADJUST	OSCILLOSCOPE	D.C. METER INDICATOR
			Min.	Lch R719		Lch TP1(+), TP3(–) (Both ends of R755) DC3mV (15mA)
				Rch R720		Rch TP2(+), TP4(–) (Both ends of R756) DC3mV (15mA)

Carbon film 0.125 W or 0.2 W	70°C	5%	
Carbon film 0.25 W or 0.33 W	70°C	5%	
Metal film 0.25 W or 0.33 W	70°C	5%	
Carbon film 0.5 W	70°C	5%	
Carbon film 0.67 W	70°C	5%	
Carbon film 1 W or 1.15 W	70°C	5%	

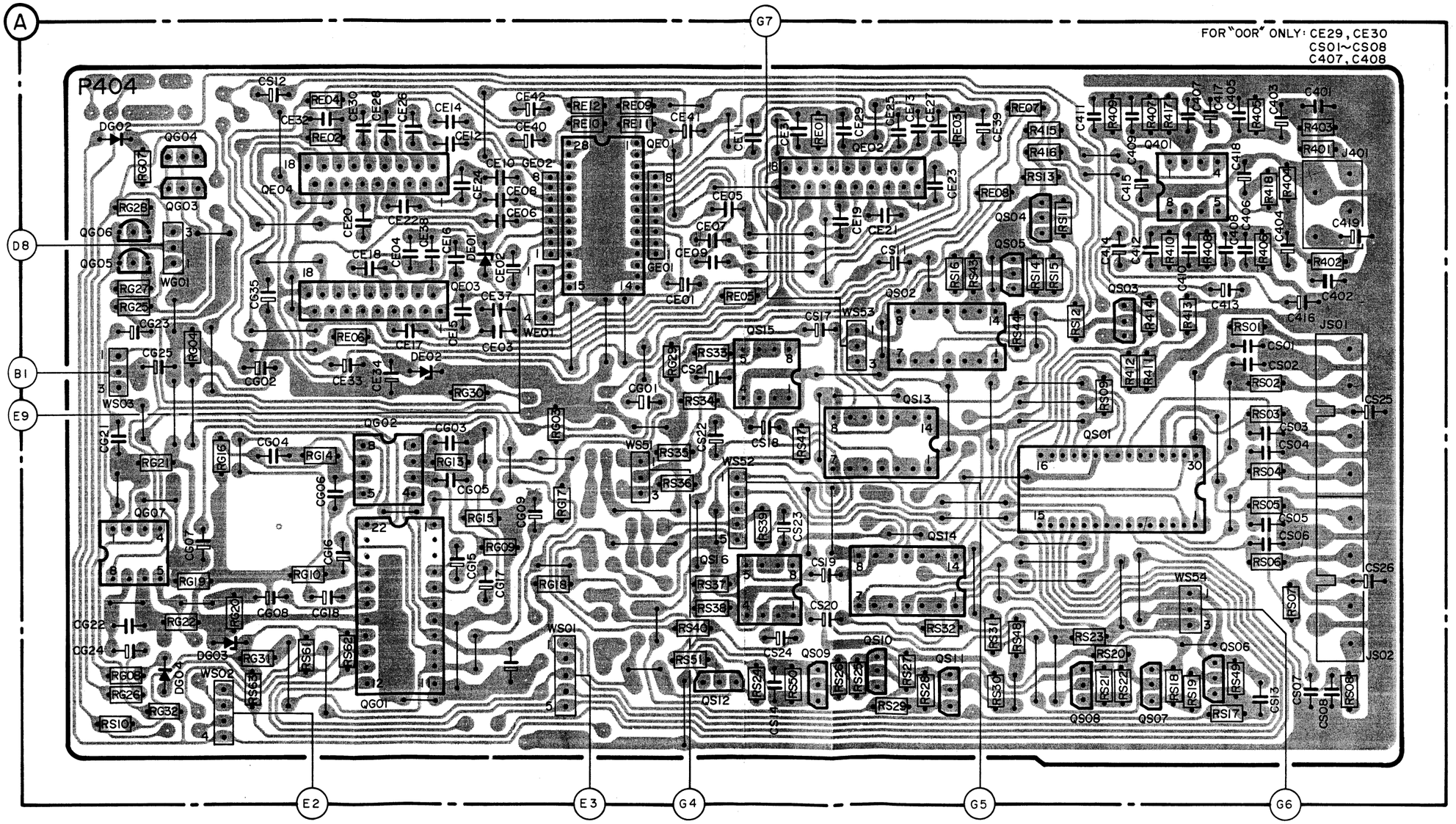
Ⓒ Chip component

Ceramic plate Tuning ⩽ 120 pF NP.0		2%
Others		−20/+80%
Polyester flat foil		10%
Metalized polyester flat film		10%
Polyester flat foil small size (Mylar)		10%
Polysterene film/foil		1%
Tubular ceramic		
Miniature single		
Subminiature tantalum		± 20%

*a = 2.5 V
b = 3.15 V or 4 V
c = 6.3 V
d = 10 V
e = 16 V
f = 25 V
g = 40 V
h = 63 V
j = 100 V
l = 125 V
m = 150 V
n = 160 V
q = 200 V
r = 250 V
s = 300 V
t = 350 V
u = 400 V
v = 500 V
w = 630 V
x = 1000 V
A = 1.6 V
B = 6 V
C = 12 V
D = 15 V
E = 20 V
F = 35 V
G = 50 V
H = 75 V
I = 80 V

WIRING DIAGRAM

R	RG19~RG22 RG16 RE04 RE06 RG15 RE09~RE12 RS33~RS40 RE01 RE03 RE08 RE07 R407~R414 R417 R401~R406
	RG08 RG07 RG04 RG32 RG31 RE02 RG30 RG09 RG03 RG29 RE05 RS24 RS50 RS48 RS16 RS43 R415 R416 RS09 R418 RS01~RS08
	RG25~RG28 RS10 RG10 RG14 RS61 RS62 RG13 RG17 RG18 RS51 RS47 RS25~RS32 RS44 RS11~RS15 RS17~RS23 RS49
C	CSI2 CE32~CE34 CE30 CE28 CE22 CE14~CE18 CE37 CG15 CG17 CE01 CE09 CE07 CE05 CE11 CSI7~CS20 CS11 CE23 CE39 C409~C415 C417 C401~C408 C416 CS25
	CG07 CG04 CG06 CG18 CE20 CE26 CE38 CE12 CE10 CE03 CG03 CG10 CG01 CS21~CS24 CE25 CE13 CE27 C418 C419 C426
	CG21~CG25 CG02 CG08 CG16 CG35 CE04 CE24 CE08 CE06 CE02 CG05 CE40~CE42 CE31 CE29 CE19 CE21 CSI3 CS01~CS08
Q	QG03~QG07 QE04 QG02 QG01 QE03 QE01 QSI2 QSI6 QSI5 QS09~QS11 QE02 QS13 QS14 QS01~QS05 Q401 QS06~QS08
D – G	DG02 DG04 DG03 DE02 GE02 GE01



COPPER TRACK SIDE VIEW

SCHEMATIC DIAGRAM

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SCHEMATIC DIAGRAM

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SCHEMATIC DIAGRAM

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SCHEMATIC DIAGRAM

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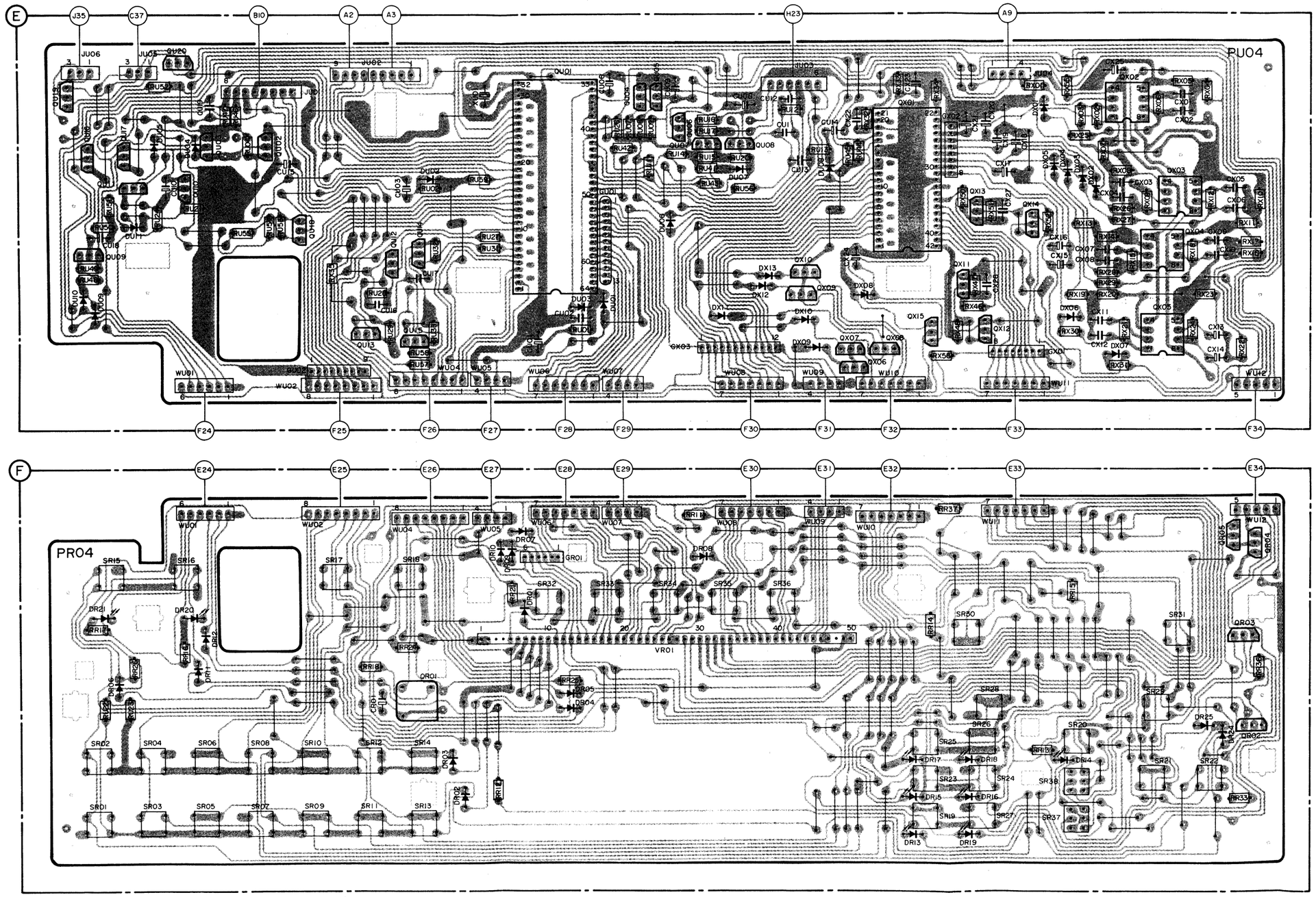
WIRING DIAGRAM

R	RU48～RU52 RU24 RU21 RU47 RU46 RX35 RU28～RU30 RU32～RU34 RU27 RU01 RU26 RU07～RU09 RU15～RU17 RU20 RU12 RU13 RU45 RU44 RX46～RX53 RX01～RX03 RX25～RX31 RX04～RX06 RX10～RX12
	RU04 RU58 RU57 RU02 RU59 RU31 RU42 RU14 RU11 RU41 RU43 RX32 RX33 RX34 RX41 RX55 RX13 RX14 RX07～RX09 RR33 RR36 RX16～RX18
	RRI7 RR26 RR23 RR22 RRI6 RU53～RU55 RRI8 RR24 RR12 RR21 RR25 RR11 RU56 RRI4 RX56 RR37 RRI3 RRI5 RXI9～RX21 RXI5 RX54 RX22～RX24
C	CUI8 CUI0 CUI9 CUI5 CUI6 CU03 CUI7 CU04 CU05 CU01 CU02 CU06 CU09 CU08 CUI1～CUI4 CX22～CX24 CX17～CX21 CXI6 CXI5 CXII CXI2 CX26 CX05 CX06
	CR01 DR07 CX28 CX27 CX07 CX08 CX25 CX01～CX04 CX09 CX10 CX13 CXI4
D－S－X	DU09～DUII DR2I DR06 DU05 DU04 DR20 DRI1 DRI2 SR01～SRI8 DU02 XU01 DR03 DR02 DRI0 DR09 DR01 DU03 DU01 DR05 DR04 DU06 DR08 SR32～SR36 DU07 DX09～DX13 DU08 DX08 DRI3～DRI9 SR19～SR31 DX01～DX07 SR38 SR37 DR25 DR24
G－O－V	QUI9 QUI6 QU09 QUI7 QUII QU20 QUI0 QU03 QU02 GU02 QUI8 QUI2～QUI5 QR01 GR01 QU01 GU01 VR01 QU04～QU08 GX03 QX06～QXI0 QX01 QXI5 GX02 QXII～QXI4 GX01 QX02～QX05 QR02～QR05



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WIRING DIAGRAM

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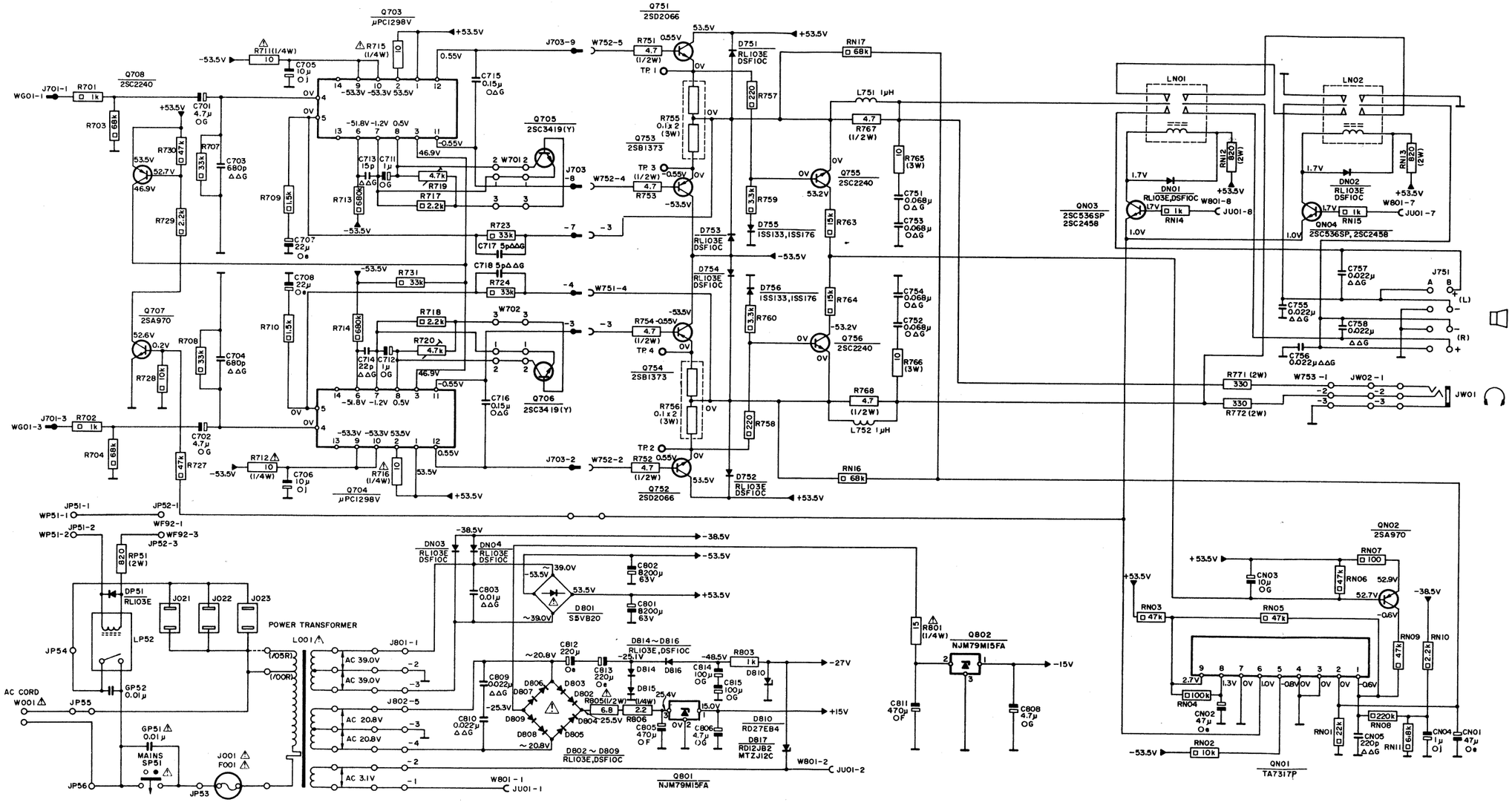
SCHEMATIC DIAGRAM

R	R701 ~ R704 R728 ~ R730 R727 R707 R708 R709 ~ R712 R713 ~ R720 R731 R723 R724 R751 ~ R754 R755 R756 R757 ~ R760 RN17 RN16 R765 ~ R768 RN13 RN12 RN14 RN12 R771 R772 RN15 RN13	R
	RP51 R805 R806 R803 R801 RN03 RN04 RN02 RN05 RN06 RN01 RN07 RN08 ~ RN11	
C	C701 ~ C704 C705 ~ C710 C711 ~ C714 C715 ~ C718 C751 ~ C754 C755 ~ C758	C
	C803 C809 C810 C812 C813 C802 C801 C805 C814 C815 C806 C811 C808 CN02 CN03 CN05 CN04 CN01	
Q — D	DP51 Q708 Q707 Q703 Q704 Q705 Q706 DN04 DN03 D802 ~ D809 D801 D814 ~ D816 Q751 ~ Q754 Q801 D751 ~ D756 D810 Q755 Q756 D817 Q802 QN03 DN01 QN01 QN04 DN02 QN02	Q — D
G-L-S-F	LP52 GP52 GP51 SP51 F001 L001 L751 L752 LN01 LN02	G-L-S-F



SCHEMATIC DIAGRAM

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WIRING DIAGRAM

R	R801~R803 RN06~RN11 R775 R805 R755~R758 R760 R767 R788 RN12 RN13 RN15 R765 R766 RN16 RN17 RN01 RN05 R713 R723 R717
	R806 R764 R759 R772 R771 R751~R754 RP51 RN14 R720 R718 R761 R762 R708 R730 R724 R714 R731 R709~R716 R701~R704 R727 R728 R719
C	C808 C805 C806 C815 C814 C813 C810 C809 C801~C803 C751~C754 C721 CN05 CN01 C755~C760 CN02
	C811 CN03 CN04 C712 C702 C704 C714 C716 C718 C705~C708 C717 C713 C703 C711 C701 C715
D – S	D817 D810 D815 D816 D755 D814 DP51 D802~D809 SP51 DN03 DN04 D801 D752~D754 D756 D751 DN02 DN01
G-L-Q	L001 Q801 Q802 QN02 Q755 Q756 Q754 Q753 LP52 GP52 GP51 Q752 Q751 Q706 L752 L751 Q704 Q708 QN03 QN04 LN02 LN01 QN01 Q703 Q707 Q705

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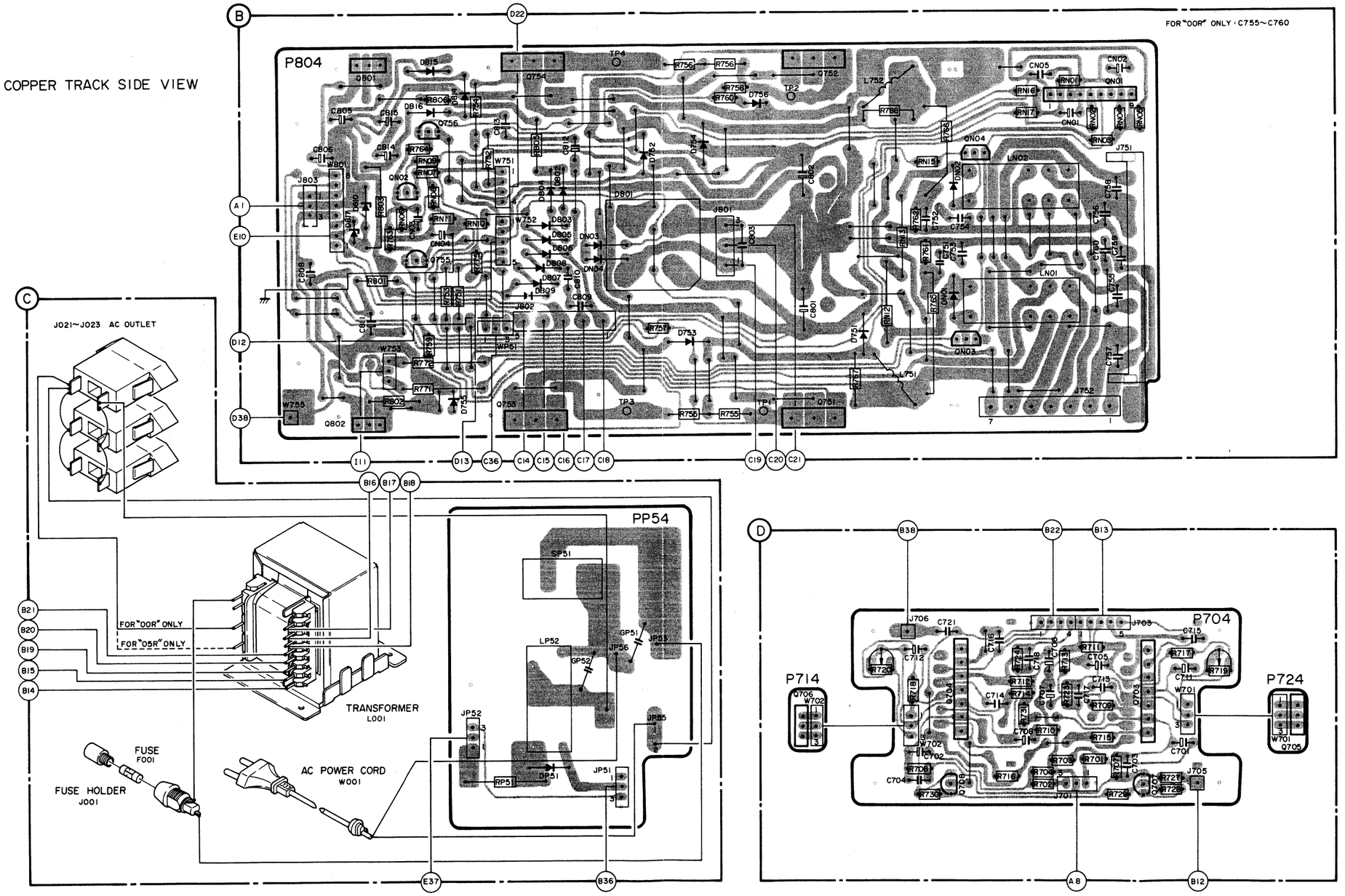
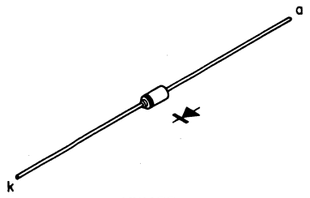
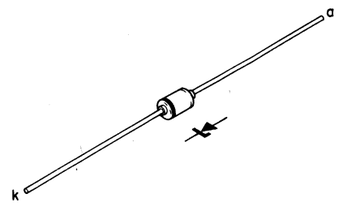


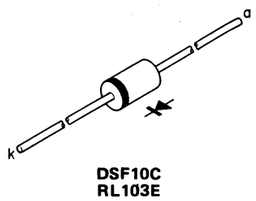
Semiconductor Layout



1SS133
1SS176
MA165



RD5.1JB2/MTZJ5.1B
RD5.6JB2/MTZJ5.6B
RD6.8JB2/MTZJ6.8C
RD12JB2/MTZJ12C
RD27EB4



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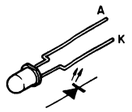
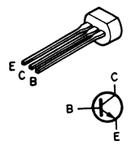
RL103E



LT3D8B



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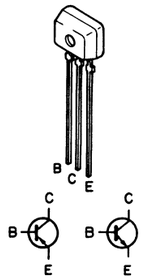

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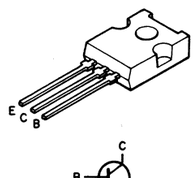
2SA933S 2SC1740S
2SA1048 2SC2458
2SA1309A 2SC3311A



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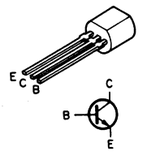

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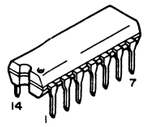

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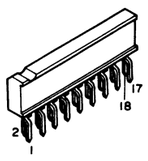

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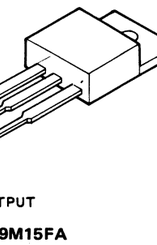

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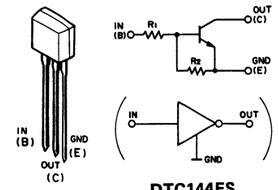

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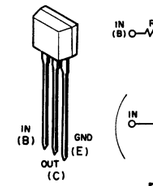
DTC114TS
DTC144ES

DTC144ES



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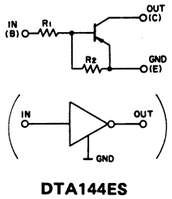
DTA144TS



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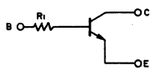

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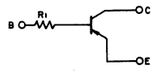

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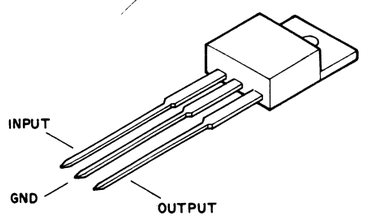

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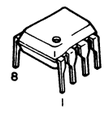

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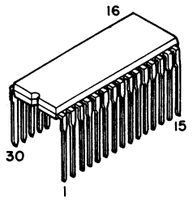

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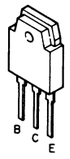
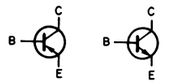
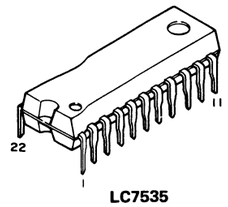




2SB1373 2SD2066



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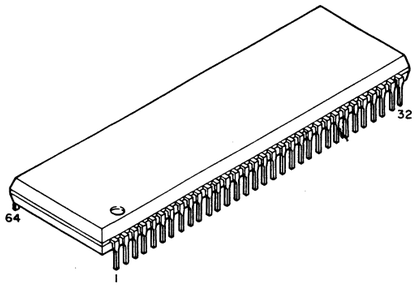

LC6554H

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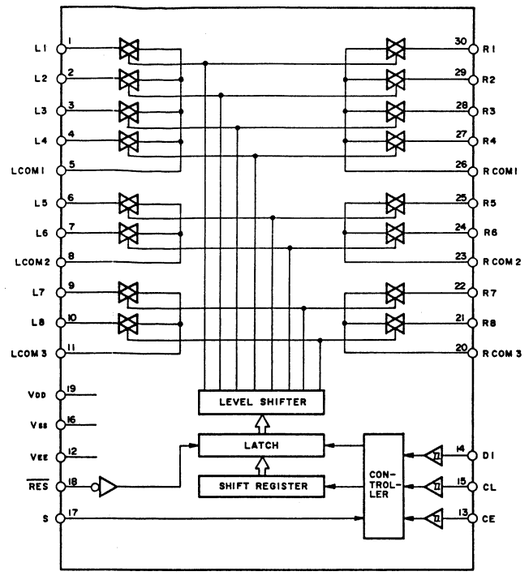

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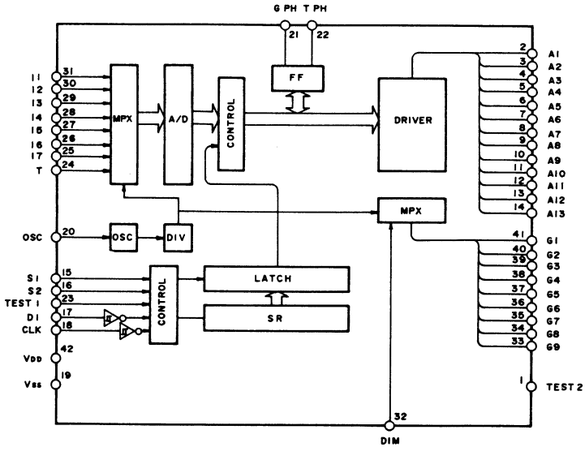

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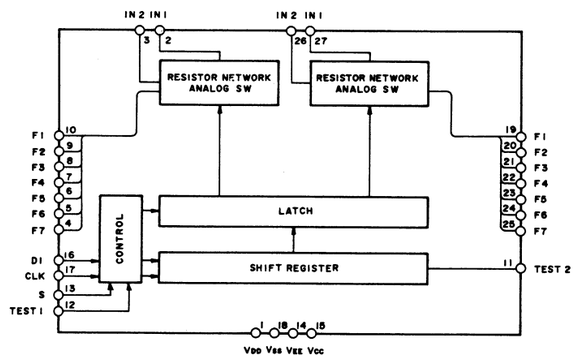

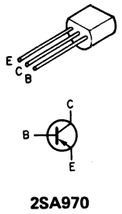

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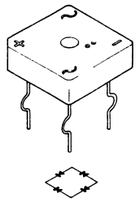
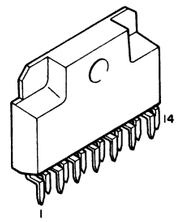


S5VB20



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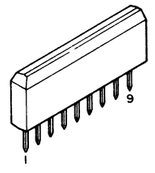

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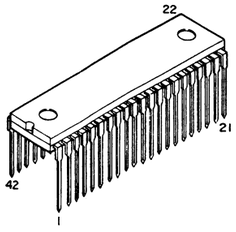

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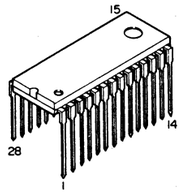

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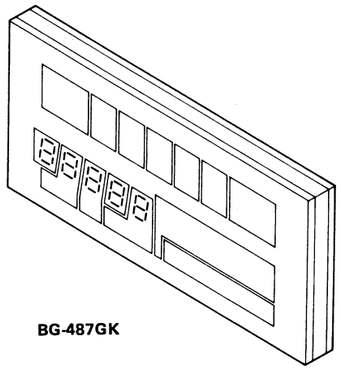
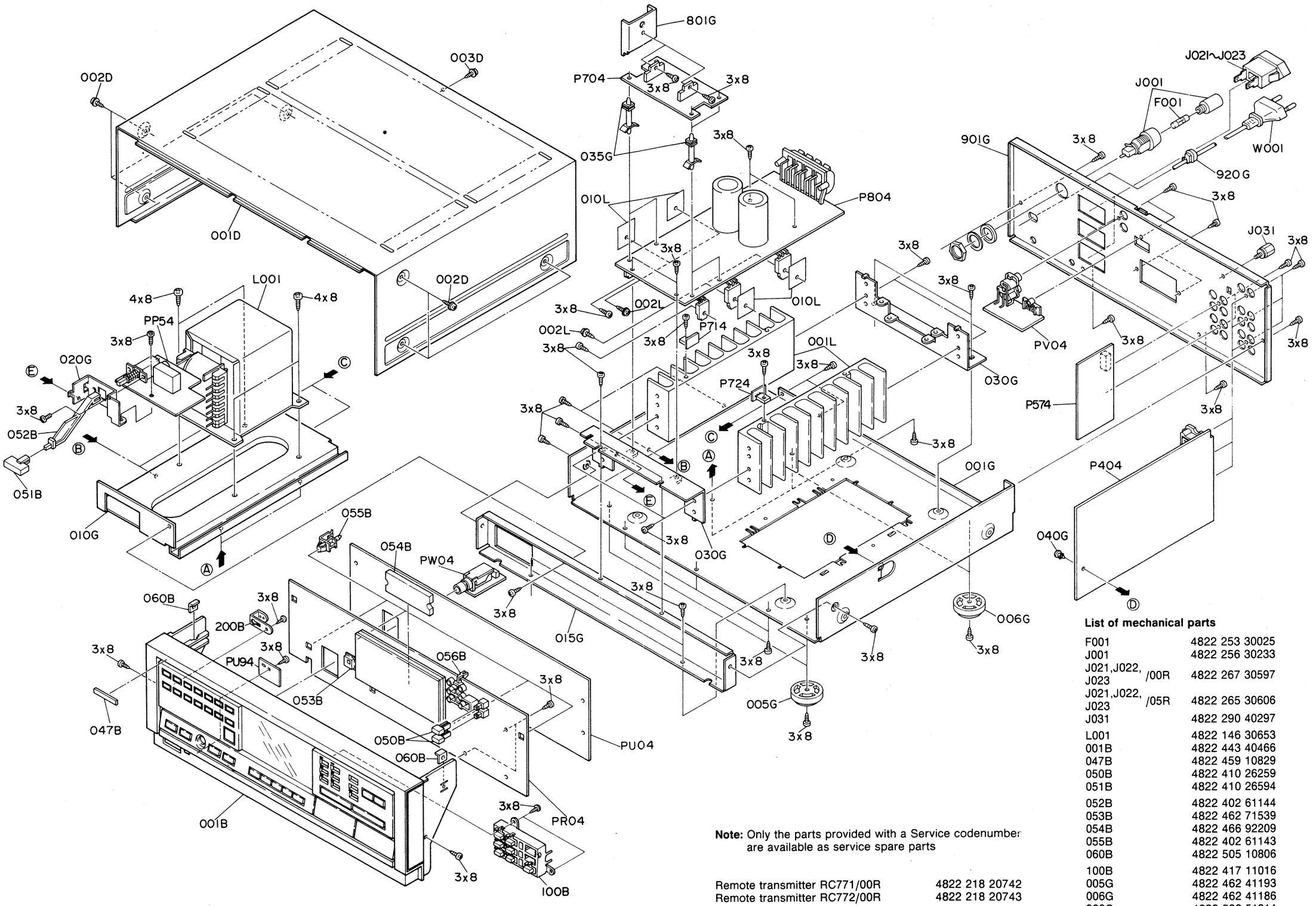


BG-487GK

EXPLODED VIEW



Note: Only the parts provided with a Service codenumber are available as service spare parts

Remote transmitter RC771/00R	4822 218 20742
Remote transmitter RC772/00R	4822 218 20743

List of mechanical parts

F001		4822 253 30025
J001		4822 256 30233
J021,J022, J023	/00R	4822 267 30597
J021,J022, J023	/05R	4822 265 30606
J031		4822 290 40297
L001		4822 146 30653
001B		4822 443 40466
047B		4822 459 10829
050B		4822 410 26259
051B		4822 410 26594
052B		4822 402 61144
053B		4822 462 71539
054B		4822 466 92209
055B		4822 402 61143
060B		4822 505 10806
100B		4822 417 11016
005G		4822 462 41193
006G		4822 462 41186
920G		4822 532 51314

LIST OF ELECTRICAL PARTS

Capacitors

CU01	Super cap 0.1 F 5.5 V	4822 124 41592
CU14	Cap. elect. 0.1 µF 50 V	4822 124 41604
GP51,GP52	Cap. cer. 0.01 µF 400 V	4822 122 33276
GU01	Cap. comp. 100 pF (5x)	4822 121 51191
C717,C718	Cap. cer. 5pF 50 V	4822 122 31447
C801,C802	Electr. cap. 8200 µF 63 V	4822 124 41296

Resistors

GU02				
GE01,GE02	Res. comp.	100k	(7x)	4822 111 91398
GX01,GX02				
GR01	Res. comp.	100k	(4x)	4822 111 91399
GX03	Res. comp.	100k	(11x)	4822 116 90313
RE07,RE08 RG17,RG18	Res. safety	220 Ω	1/4 W	4822 116 52849
RN12,RN13 RP51	Res. safety	820Ω	2 W	4822 116 60272
RX35	Res. safety	150 Ω	1 W	4822 116 60337
R415,R416	Res. safety	220 Ω	1/4 W	4822 116 52849
R711,R712 R715,R716	Res. fuse	10 Ω	1/4 W	4822 115 90166
R719,R720	Potm	4.7 k		4822 100 11373
R751,R752 R753,R754	Res. safety	4.7Ω	1/2 W	4822 116 52858
R755,R756	Res. comp.	0.1 Ω	(23x)	4822 111 91402
R765,R766	Res. safety	10 Ω	3 W	4822 116 60326
R767,R768	Res. safety	4.7 Ω	2 W	4822 116 52858
R771,R772	Res. safety	330 Ω	2 W	4822 116 60262
R801	Res. fuse	15 Ω	1/4 W	4822 116 60417
R802	Res. safety	1.5 k	1/2 W	4822 111 50479
R803	Res. safety	1k	2 W	4822 116 60332
R805	Res. fuse	6.8 Ω	1/2 W	4822 111 20384
R806	Res. safety	2.2 Ω	1/4 W	4822 116 52348

Transistors

DTA114ES	4822 130 61227
DTA144ES	4822 130 42682
DTA144TS	4822 130 61187
DTC114TS	4822 130 61189
DTC144ES	4822 130 42594
DTC144TS	4822 130 61188
2SA608SP, 2SA1048 2SA1309,A	4822 130 42715
2SA970	4822 130 42951
2SA970 (GR)	4822 130 42949
2SB1373 (Q-P)	4822 130 60928
2SC536SP,2SC2458 2SC3311,C	4822 130 42298
2SC2240 GR	4822 130 43231
2SC2240	4822 130 43233
2SC2878 A	4822 130 43818
2SC3419Y	4822 130 60117
2SD2066 (Q.P)	4822 130 60929

ICs

BA3812L	4822 209 83338
LC4966	4822 209 83804
LC6554H-3761	4822 209 73289
LC7522	4822 209 71783
LC7535VR	4822 209 71784
LC7565FL	4822 209 71782
LC7821	4822 209 72357
NJM4558D	4822 209 80401
NJM4558D-D	4822 209 83631
NJM7815	4822 209 83317
NJM79M15FA	4822 209 83828
TA7317P	4822 209 83312
UPC-1298V	4822 209 70382

Diodes

LT3D8B red	4822 130 80326
RD5.1JB2,MTZJ5.1B	4822 130 80317
RD5.6JB2,MTZJ5.6B	4822 130 33948
RD6.8JB2,MTZJ6.8B	4822 130 80318
RD12JB2,MTZJ12C	4822 130 80091
RD27EB4	4822 130 32757
RL103E,DSF10C	4822 130 32508
S5VB20	4822 130 30984
1SS133,1SS176	4822 130 33305

-Miscellaneous-

F001	Fuse 2A 250 V	4822 253 30025
JS01,JS02 JS71,JS72	Jack 4p	4822 265 30397
JV01	Jack 2p	4822 266 30274
JV02	Jack 5p	4822 267 40768
JW01	Headphone jack	4822 267 30596
J001	Fuse holder	4822 256 30233
J021, J022, /00R J023	AC outlet	4822 267 30597
J021 J022, /05R J023	AC outlet	4822 265 30606
J031	Ground terminal	4822 290 40297
J401	Socket 2p	4822 267 30741
J751	Speaker terminal	4822 290 60686
LN01,LN02	Relay DC 24V	4822 280 60511
LP52	Relay 250 V AC	4822 280 20222
L001	Mains transformer	4822 146 30653
L751,L752	Choke coil 1 µH	4822 157 51739
QR01	IR sensor for RC5	4822 130 10009
SP51	Push switch	4822 276 11654
SR01+SR36	Push switch	4822 276 11559
SR37,SR38	Push switch	4822 276 12336
SS71	Switch slide (stereo)	4822 277 21176
VR01	Display BG-487GK	4822 130 90494
XU01	Cer. filter 4 MHz	4822 242 72223